SANTA CRUZ BIOTECHNOLOGY, INC.

SPACR (M-300): sc-292037

BACKGROUND

SPACR (sialoprotein associated with cones and rods), also known as IMPG1 (interphotoreceptor matrix proteoglycan 1) or IPM150 (interphotoreceptor matrix proteoglycan of 150 kDa), is a 797 amino acid secreted protein that contains 2 SEA domains. Possibly interacting with hyaluronan, SPACR may help to form a basic macromolecular scaffold comprising the insoluble interphotoreceptor matrix. SPACR is abundantly expressed in retina, where it is specifically expressed by cone and rod photoreceptor cells. The gene that encodes SPACR consists of approximately 151,564 bases and maps to human chromosome 6q14. With 170 million base pairs, chromosome 6 comprises nearly 6% of the human genome. Porphyria cutanea tarda, Parkinson's disease, Stickler syndrome and a susceptibility to bipolar disorder are all associated with genes that map to chromosome 6.

REFERENCES

1. Felbor, U., et al. 1998. Genomic organization and chromosomal localization of the interphotoreceptor matrix proteoglycan-1 (IMPG1) gene: a candidate for 6q-linked retinopathies. Cytogenet. Cell Genet. 81: 12-17.
2. Acharya, S., et al. 1998. Characterization of SPACR, a sialoprotein associated with cones and rods present in the interphotoreceptor matrix of the human retina: immunological and lectin binding analysis. Glycobiology 8: 997-1006.
3. Acharya, S., et al. 1998. SPACR, a novel interphotoreceptor matrix glycoprotein in human retina that interacts with hyaluronan. J. Biol. Chem. 273: 31599-31606.
4. Gehrig, A., et al. 1998. Assessment of the interphotoreceptor matrix proteoglycan-1 (IMPG1) gene localised to 6q13-q15 in autosomal dominant Stargardt-like disease (ADSTGD), progressive bifocal chorioretinal atrophy (PBCRA), and North Carolina macular dystrophy (MCDR1). J. Med. Genet. 35: 641-645.
5. Online Mendelian Inheritance in Man, OMIM™. 1998. Johns Hopkins University, Baltimore, MD. MIM Number: 602870. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

CHROMOSOMAL LOCATION

Genetic locus: IMPG1 (human) mapping to 6q14.1; Impg1 (mouse) mapping to 9 E1.

SOURCE

SPACR (M-300) is a rabbit polyclonal antibody raised against amino acids 121-420 mapping within an internal region of SPACR of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

SPACR (M-300) is recommended for detection of SPACR of mouse, rat and, to a lesser extent, human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for SPACR siRNA (h): sc-95466, SPACR siRNA (m): sc-153699, SPACR shRNA Plasmid (h): sc-95466-SH, SPACR shRNA Plasmid (m): sc-153699-SH, SPACR shRNA (h) Lentiviral Particles: sc-95466-V and SPACR shRNA (m) Lentiviral Particles: sc-153699-V.

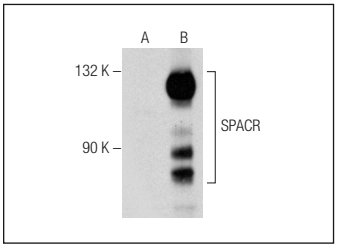
Molecular Weight of SPACR: 150 kDa.

Positive Controls: SPACR (h): 293T Lysate: sc-372566.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



SPACR (M-300): sc-292037. Western blot analysis of SPACR expression in non-transfected: sc-117752 (**A**) and human SPACR transfected: sc-372566 (**B**) 293T whole cell lysates.

RESEARCH USE

For research use only, not for use in diagnostic procedures.